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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,054	02/26/2002	Kevin J. Schulz	S01.12-0829/STL 10301	4383

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EXAMINER

KLIMOWICZ, WILLIAM JOSEPH

ART UNIT	PAPER NUMBER
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2652

DATE MAILED: 12/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/083,054

Applicant(s)

SCHULZ ET AL.

Examiner

William J. Klimowicz

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) 3-5, 8-12, 14, 17-20, 22 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 6, 7, 13, 15, 16, 21, 23 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Status

Claims 1-25 are currently pending.

Claims 3-5, 8-12, 14, 17-20, 22 and 25 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in Paper No. 5 (filed June 18, 2002).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, 7, 13, 15, 16, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pal et al. (US 4,760,478) in view of Oberg (US 4,991,045).

As per claims 1, 13, 15, 21 and 23, Pal et al. (US 4,760,478) discloses a data storage device for storing and accessing data in tracks on a medium (11), the storage device having a suspension (12) comprising: a metal material (24) defining at least a portion of the suspension (12); an adhesive (34) (*e.g.*, see COL. 4, lines 45-62) bonded to a portion of the metal material (24); and a stiffener material (36) being bonded to the adhesive and overlying the metal load beam.

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Additionally, as per claim 21, the suspension body (12) is formed from the layer of metal (24); and stiffener means (36) for increasing the stiffness of selected areas of the suspension.

As per claim 2, the metal material defines a load beam (24) of the suspension and the adhesive (34) and the stiffener material (36) are positioned on the load beam (24).

As per claims 1, 13 and 21, however, Pal et al. (US 4,760,478) remains silent with respect to the stiffener being a composite material. More concretely, Pal et al. (US 4,760,478) discloses the stiffener material being a conventional stainless steel (*e.g.*, see COL. 6, lines 5-6).

Oberg (US 4,991,045), however, discloses an analogous suspension system used in a data storage device wherein a stiffener material provided as overlying a metal load beam is made of a composite material. Such a stiffener material (36) has a higher stiffness to weight ratio than the metal material (due to its composition, which includes a liquid crystal polymer - see COL. 4, lines 23-47) as per claims 1 and 24.

Oberg (US 4,991,045) discloses such a composite stiffener material (liquid crystal polymers, which may include fillers such as fibers).

As per claims 6 and 16, the composite material (106) comprises a high performance plastic and as per claim 7, the composite material (106) comprises a liquid crystal polymer (see COL. 4, lines 23-47).

Oberg (US 4,991,045) discloses such a composite stiffener (stiffener means) material in lieu of similar stainless steel constructions in order to provide, *inter alia*, "substantial weight savings ... which may reduce access time" (COL. 4, lines 18-22) and wherein "[t]he mechanical damping is excellent" when contrasted with conventional stainless steel materials used in similar applications. COL. 23-32.

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the composite stiffener overlying the metal load beam as taught by Oberg (US 4,991,045) in lieu of the stainless steel stiffener of Pal et al. (US 4,760,478).

The rationale is as follows: one of ordinary skill in the art would have been motivated to provide the composite stiffener overlying the metal load beam as taught by Oberg (US 4,991,045) in lieu of the stainless steel stiffener of Pal et al. (US 4,760,478) in order to provide, *inter alia*, "substantial weight savings ... which may reduce access time" (COL. 4, lines 18-22) and wherein "[t]he mechanical damping is excellent" when contrasted with conventional stainless steel materials used in similar applications. COL. 23-32.

Response to Arguments

Applicant's arguments with respect to claims 1, 2, 6, 7, 13, 15, 16, 21, 23 and 24 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to William J. Klimowicz whose telephone number is (703) 305-3452. The examiner can normally be reached on Monday-Thursday (6:30AM-5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (703) 305-9687. The fax phone numbers for the

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organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.


William J. Klimowicz
Primary Examiner
Art Unit 2652

WJK
December 18, 2002